

08 FEB.

Work Order ID 155488

155488

Page 1

Tuesday, January 17, 2017 11:21:13 AM

Item ID: D2563 Accept *N900040100* Setup Start *NS1*
 Revision ID: Stop *NS2*
 Item Name: Step Weldment Assembly
 Start Date: 1/10/2017 Start Qty: 4.00 *4* Cust Item ID:
 Required Date: 1/17/2017 Req'd Qty: 4.00 *4* Customer:
 Reference:

Approvals: Process Plan: DAS 21 Date: JAN 18 2017 Tooling: _____ Date: _____ Run Start *NR1*
 QC: 9-89 Date: _____ SPC (Y/N): _____ Date: _____ Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D2563	Rev C								

100

0.00

100

Large Fab

Large Fab

Memo

0.37

Large Fab

1-Cut D2244 to 89.70" at 34 deg as per dwg D2563

2-Deburr ends

3-Weld (1 END CAP, LUG PLATES & MOUNTING ANGLE) as per dwg A/RM 136158

D2563 using DT 8343

4- Grind

4x DL 2017/02/02

110

QC9- Inspect visual per QSI004- Fusion Welds

0.00

110

QC

Memo

0.00

Quality Control

4 FEB 02 2017 Cpc

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table style="width:100%; border: none;"> <tr> <td style="border: none;">Skid-tube ☐</td> <td style="border: none;">Cross tube ☐</td> <td style="border: none;">Water Jet ☐</td> <td style="border: none;">Engineering ☐</td> </tr> <tr> <td style="border: none;">Machining ☐</td> <td style="border: none;">Small Fab ☐</td> <td style="border: none;">Prod. Eng. Coord. ☐</td> <td style="border: none;">Quality ☐</td> </tr> <tr> <td style="border: none;">Thermoforming ☐</td> <td style="border: none;">Finishing ☐</td> <td style="border: none;">Rec/Store/Packaging ☐</td> <td style="border: none;">Other ☐</td> </tr> <tr> <td style="border: none;">Large Fab ☐</td> <td style="border: none;">Composite ☐</td> <td style="border: none;">Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐	
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								QC / QA Coordinator Approval																	
Root Cause		FAULT CATEGORY																							
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Tuesday, January 17, 2017 11:21:13 AM

Page 2

Quality Control

4 FEB 02 2017 CC

X4 ~~Ø~~ 2017/02/10
BER

4 FEB 02 2017 CC

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Page 3

Item ID: D2563 Accept ***N900040100*** Setup Start ***NS1***
Revision ID: Stop ***NS2***
Item Name: Step Weldment Assembly
Start Date: 1/10/2017 Start Qty: 4.00 ***4*** Cust Item ID:
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Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____ Run Start ***NR1***
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____ Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
150 *150* Large Fab	Weld per dwg A/R Aluminum rod Batch: <u>134785</u> Large Fab	0.00				<u>4</u>			
	Memo	0.37							
	1-Inspect for foreign object per QSI 024								
	2-Weld Remaining End cap as per Dwg D2563 using DT 8343								
	3-Grind  <u>4x</u> <u>DC 2017/02/03</u>								
160 *160* QC	QC10- Inspect visual per QSI004- ground welds	0.00							
Quality Control	Memo	0.00							
							<u>(4) 17-02-03</u>		DAS 9 9-89
170 *170* QC	QC5- Inspect part completeness to step on W/O	0.00							
Quality Control	Memo	0.01							
							<u>(4) 17-02-03</u>		DAS 9 9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

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Work Order update only ☐

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Page 4

Hand Finishing

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Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐				

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Page 5

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Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
200	QC3- Inspect Part Finish	0.00				4			DAS 38 9-89
200									FEB 16 2017
QC	Memo	0.01							
Quality Control									
210	Identify as per dwg & Stock Location: _____	0.00				4			DAS 27 9-89
210									FEB 22 2017
Packaging	Memo	0.01							
Packaging									
220	QC21- Final Inspection - Work Order Release	0.00							
220									17/2/23
QC	Memo	0.07							
Quality Control									

DAS
21
9-89

FEB 22 2017

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Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coor. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐				

Picklist Print

Tuesday, January 17, 2017 11:21:12 AM

Page 1

Work Order ID: 155488

155488

Parent Item: D2563

D2563

Parent Item Name: Step Weldment Assembly

Start Date: 1/10/2017

Required Date: 1/17/2017

Start Qty: 4.00

Required Qty: 4.00

Comments: IPP Rev:G 02.07.31 Re-format Location RF

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

D2244-116

Manufactured

No

100

Each

112.0000

1

4

D2244-116

Step Extrusion

**

Location

Loc Qty

Loc Code

HALL

18

117818

18

WA003

94

150064

94

xxxxx

0.0000368

D2561

Manufactured

No

100

Each

22.0000

2

8

D2561

Lug

**

Location

Loc Qty

Loc Code

WA003

22

145947

6

148573

16

D2564

Manufactured

No

100

Each

16.0000

2

8

D2564

Mounting Angle

**

Location

Loc Qty

Loc Code

WA003

16

144308

16

BE 17-01-31
B152 795 x 4

4

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
		OTHER : _____			

Picklist Print

Tuesday, January 17, 2017 11:21:12 AM

Page 2

Work Order ID: 155488

155488

Parent Item: D2563

D2563

Parent Item Name: Step Weldment Assembly

Start Date: 1/10/2017

Required Date: 1/17/2017

Start Qty: 4.00

Required Qty: 4.00

✓ D2673-34

Manufactured No

100

Each

49.0000

1

4

D2673-34

End Plate

**

Location

Loc Qty

Loc Code

WA003

148718

49

3

151793

20

152320

26

✓ D2673-34

Manufactured No

150

Each

49.0000

1

4

D2673-34

End Plate

**

Location

Loc Qty

Loc Code

WA003

148718

49

3

151793

20

152320

26

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

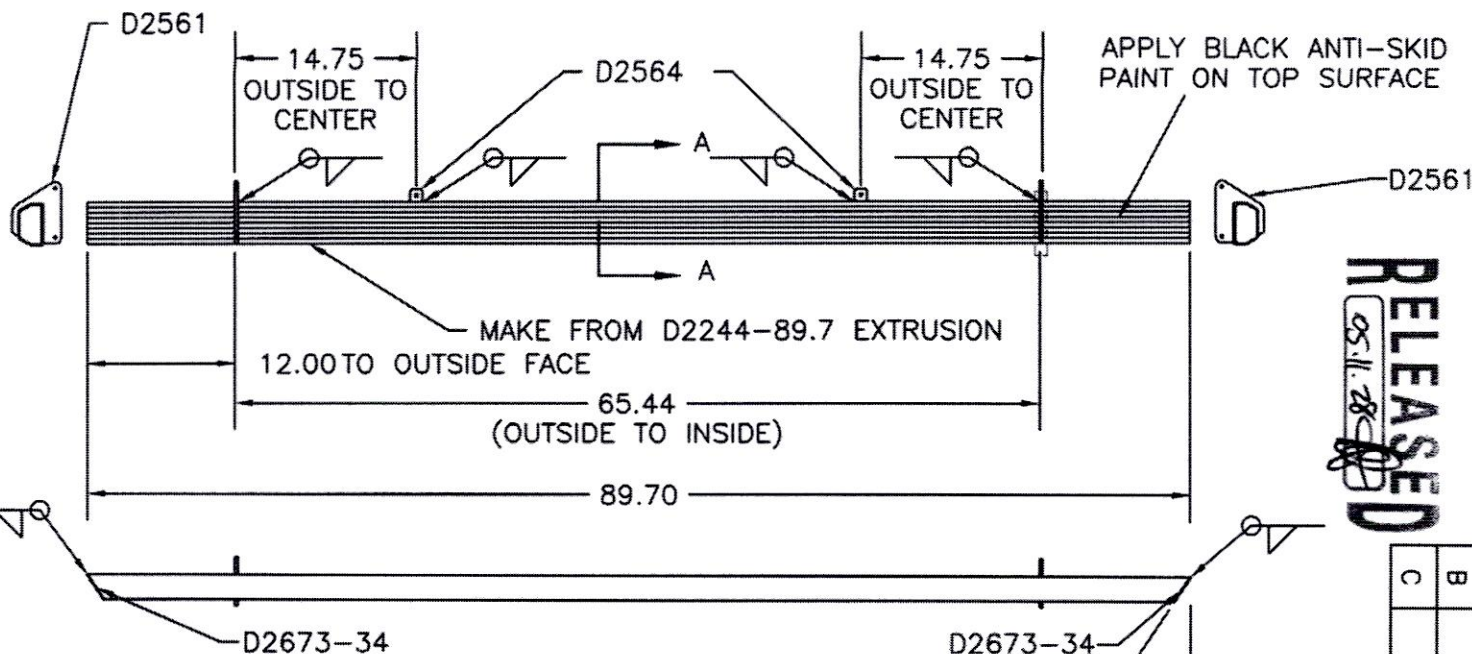
QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
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Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐
Past Expiry Date ☐	Manufacturing Process ☐	OTHER : _____			
Misidentified ☐	Past Due ☐				

DART

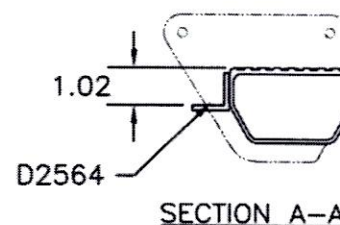
RELEASED
05.11.28



D2563 STEP WELDMENT ASSEMBLY PARTS LIST

Part No.	Description	QTY
D2563	STEP WELDMENT ASSEMBLY	X
D2244-89.7	EXTRUSION*	1
D2561	LUG PLATE	2
D2564	MOUNTING ANGLE	2

*cut per drawing



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SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 155488 ML5 1701-18

D2563 STEP WELDMENT ASSEMBLY NOTES

- 1) MAKE FROM EXTRUSION D2244
- 2) WELD PER DART QSI 004
- 3) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
POWDER COAT ASSEMBLY WHITE (4.3.5.1) PER DART QSI 005 4.3
MASK OFF 0.50 ON EACH SIDE OF D2561 LUGS BEFORE
APPLYING BLACK ANTI-SKID PAINT PER DART QSI 005 4.4
- 4) ALL DIMENSIONS ARE IN INCHES
- 5) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

DESIGN	BW	DRAWN BY	DART AEROSPACE LTD HAMKESBURY, ONTARIO, CANADA
CHECKED		APPROVED	DRAWING NO. D2563
DATE	05.11.14		TITLE STEP WELDMENT ASSEMBLY
			SCALE 1:15
A	96.04.26	NEW ISSUE	
B	97.05.14	END CAPS CHANGED (WAS D2248)	
C	05.11.14	UPDATE NOTES	